

AmerGen Energy Company
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10 CFR 50.73

September 17, 2007
RA-2007-026

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555 - 0001

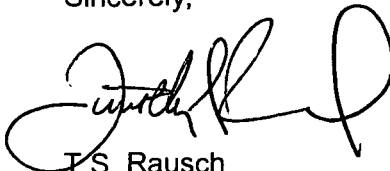
Oyster Creek Nuclear Generating Station
Facility Operating License No. DPR-16
NRC Docket No. 50-219

Subject: Licensee Event Report 2007-001-00, Automatic Reactor Scram Following
Trip of Reactor Feed Pump

Enclosed is Licensee Event Report 2007-001-00, Automatic Reactor Scram Following
Trip of Reactor Feed Pump. This event did not affect the health and safety of the public
or plant personnel. This event did not result in a safety system functional failure. There
are no new regulatory commitments made in this LER submittal.

If any further information or assistance is needed, please contact Stevie Du Pont,
Regulatory Assurance at 609-971-4033 or Jeff Dostal, Operations, at 609-971-4572.

Sincerely,



T.S. Rausch
Vice President, Oyster Creek Nuclear Generating Station

Enclosure: NRC Form 366, LER 2007-001-00

cc: Administrator, USNRC Region I
USNRC Project Manager, Oyster Creek
USNRC Senior Resident Inspector, Oyster Creek
File No. 07035

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NRR

LICENSEE EVENT REPORT (LER)

(See reverse for required number of
digits/characters for each block)

Estimated burden per response to comply with this mandatory collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------|-----------------------------------------------------------------------------------------------|---------------------------------------------|--------------------------------------------------------|------------------------------------------------------------------------|-----------|--------------------------------------------------------|------------------------------|---------------|--|
| 1. FACILITY NAME Oyster Creek, Unit 1 | | | | | | 2. DOCKET NUMBER 05000 219 | | | 3. PAGE 1 OF 4 | | |
| 4. TITLE Automatic Reactor Scram Following Trip of Reactor Feed Pump | | | | | | | | | | | |
| 5. EVENT DATE | | | 6. LER NUMBER | | | 7. REPORT DATE | | | 8. OTHER FACILITIES INVOLVED | | |
| MONTH | DAY | YEAR | YEAR | SEQUENTIAL NUMBER | REV NO | MONTH | DAY | YEAR | FACILITY NAME | DOCKET NUMBER | |
| 07 | 17 | 2007 | 2007 | 001 | 00 | 09 | 17 | 2007 | FACILITY NAME | DOCKET NUMBER | |
| | | | | | | | | | | 05000 | |
| | | | | | | | | | | 05000 | |
| 9. OPERATING MODE N | | | 11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply) | | | | | | | | |
| | | | <input type="checkbox"/> 20.2201(b) | <input type="checkbox"/> 20.2203(a)(3)(i) | <input type="checkbox"/> 50.73(a)(2)(i)(C) | <input type="checkbox"/> 50.73(a)(2)(vii) | | | | | |
| | | | <input type="checkbox"/> 20.2201(d) | <input type="checkbox"/> 20.2203(a)(3)(ii) | <input type="checkbox"/> 50.73(a)(2)(ii)(A) | <input type="checkbox"/> 50.73(a)(2)(viii)(A) | | | | | |
| | | | <input type="checkbox"/> 20.2203(a)(1) | <input type="checkbox"/> 20.2203(a)(4) | <input type="checkbox"/> 50.73(a)(2)(ii)(B) | <input type="checkbox"/> 50.73(a)(2)(viii)(B) | | | | | |
| | | | <input type="checkbox"/> 20.2203(a)(2)(i) | <input type="checkbox"/> 50.36(c)(1)(i)(A) | <input type="checkbox"/> 50.73(a)(2)(iii) | <input type="checkbox"/> 50.73(a)(2)(ix)(A) | | | | | |
| 10. POWER LEVEL 100 | | | <input type="checkbox"/> 20.2203(a)(2)(ii) | <input type="checkbox"/> 50.36(c)(1)(ii)(A) | <input checked="" type="checkbox"/> 50.73(a)(2)(iv)(A) | <input type="checkbox"/> 50.73(a)(2)(x) | | | | | |
| | | | <input type="checkbox"/> 20.2203(a)(2)(iii) | <input type="checkbox"/> 50.36(c)(2) | <input type="checkbox"/> 50.73(a)(2)(v)(A) | <input type="checkbox"/> 73.71(a)(4) | | | | | |
| | | | <input type="checkbox"/> 20.2203(a)(2)(iv) | <input type="checkbox"/> 50.46(a)(3)(ii) | <input type="checkbox"/> 50.73(a)(2)(v)(B) | <input type="checkbox"/> 73.71(a)(5) | | | | | |
| | | | <input type="checkbox"/> 20.2203(a)(2)(v) | <input type="checkbox"/> 50.73(a)(2)(i)(A) | <input type="checkbox"/> 50.73(a)(2)(v)(C) | <input type="checkbox"/> OTHER | | | | | |
| | | | <input type="checkbox"/> 20.2203(a)(2)(vi) | <input type="checkbox"/> 50.73(a)(2)(i)(B) | <input type="checkbox"/> 50.73(a)(2)(v)(D) | <input type="checkbox"/> Specify in Abstract below or in NRC Form 366A | | | | | |
| 12. LICENSEE CONTACT FOR THIS LER | | | | | | | | | | | |
| FACILITY NAME Stevie Du Pont | | | | | | | | TELEPHONE NUMBER (Include Area Code) (609) 971-4033 | | | |
| 13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT | | | | | | | | | | | |
| CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO EPIX | CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO EPIX | | |
| X | SJ | MO | G080 | Y | | | | | | | |
| 14. SUPPLEMENTAL REPORT EXPECTED | | | | | | 15. EXPECTED SUBMISSION DATE | | MONTH | DAY | YEAR | |
| <input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE) | | | | | | <input checked="" type="checkbox"/> NO | | | | | |
| ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) | | | | | | | | | | | |
| <p>On July 17, 2007 at 05:21 while operating at 100% power, an automatic reactor scram occurred due to low reactor water level following a trip of the "C" Reactor Feed Pump (RFP). The cause of the "C" RFP trip is attributed to an electrical fault internal to the motor. This transient led to an automatic scram on low reactor water level and subsequent reactor isolation on a low-low reactor level.</p> <p>There were no safety consequences impacting plant or public safety as a result of this event.</p> <p>This event is being reported pursuant to 10 CFR 50.73(a)(2)(iv)(A) due to the automatic reactor protection system and subsequent ECCS actuations.</p> | | | | | | | | | | | |

LICENSEE EVENT REPORT (LER)

| 1. FACILITY NAME | 2. DOCKET | 6. LER NUMBER | | | 3. PAGE |
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| Oyster Creek, Unit 1 | 05000219 | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | 2 OF 4 |
| | | 2007 | - 001 | - 00 | |

17. NARRATIVE (If more space is required, use additional copies of NRC Form 366A)

Unit Conditions Prior to the Event.

The unit was in Power Operation at 99.8% reactor power. There were no structures, systems or components out of service that contributed to this event.

Description of the Event

An automatic reactor scram occurred at 05:21 on July 17, 2007, due to a low reactor water level condition, following a trip of the "C" RFP. The "C" RFP overload alarm was received in the main control room followed by the breaker trip alarm at 05:20. Reactor vessel water level decreased rapidly due to the loss of feed water flow. The Reactor Operator started manually decreasing Reactor Recirculation Pump speed to lower reactor power to 70% reactor power in order to meet the capacity of the two remaining RFPs. The Oyster Creek plant design does not have an automatic Reactor Recirculation Pump runback feature to reduce power in the event of the loss of an RFP. The reactor operator was not successful in reducing reactor power to within the capacity of two RFPs prior to reaching the low-level automatic scram set point.

Reactor water level continued to lower as expected due to normal shrink and reached the Lo-Lo Reactor Water Level setpoint. Lo-Lo level actuations include containment isolation and the initiation of the Standby Gas Treatment System, Low Pressure Core Spray, and the Isolation Condensers. Reversal of the initial void collapse and heating of the colder feed water resulted in a level increase to high in the control band and eventually above 180 inches above the top of active fuel (TAF) which initially precluded the use of the Isolation Condensers. Electromatic Relief Valves (EMRVs) were manually opened on three occasions during the recovery to control pressure and also resulted in lowering of reactor vessel water level to the point where the Isolation Condensers could be utilized to maintain reactor pressure. The isolation condensers were then used to cool down the plant to where Shut Down Cooling could be placed into service at 150 psig. As a result of the heatup of the Torus, Containment Spray ESW was placed in Torus cooling to reduce Torus Temperature at 06:57. Shutdown cooling was placed into service at 10:05 and the unit reached cold shutdown at 14:00. All plant systems performed as designed.

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17. NARRATIVE (If more space is required, use additional copies of NRC Form 366A)

Analysis of the Event

There were no actual safety consequences associated with this event. The potential safety consequences of this event were minimal. The transient led to an automatic scram and subsequent operator actions to maintain the vessel level above the top of the active fuel terminated the event.

The "C" RFP trip is attributed to an internal motor ground fault and was not caused by human performance. The RFP motor was original equipment and had never been replaced. The motor was scheduled to be replaced in the next refueling outage (1R22) in 2008.

The Operations Director reviewed operator performance for this event and identified weaknesses in operator performance. A cause determination for these identified weaknesses revealed that training and repetition needs improvement to address some of the issues. Simulator sessions provided to all operating crews after the event determined that the training provided to Operations personnel to mitigate a scram due to a RFP trip was sufficient but improvement opportunities were identified for immediately verifying and communicating critical parameters at the onset of the event, improving communications within the control room staff to enhance decision-making, and ensuring sufficient turnover of critical parameters during turnover of tasks between control room staff.

Cause of the Event

The cause of the "C" RFP trip is attributed to an internal motor ground fault. This motor was original equipment having never been replaced. The motor was scheduled to be replaced during the next refueling outage (1R22) in 2008.

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17. NARRATIVE (If more space is required, use additional copies of NRC Form 366A)

Corrective Action Completed.

The failed RFP motor was replaced and the plant returned to full power operation. Operator training was conducted to emphasize communication of critical parameters between control room staff during transients. Preventive maintenance activities had been created prior to this event for periodic RFP motor refurbishments.

Corrective Action Planned.

Operations will implement corrective actions to enhance the communication of critical parameters during transients. In addition, Dynamic Learning Activities will be developed for operator performance issues that can be addressed by repetition in a simulator training setting.

Previous Similar Occurrences

On January 25, 2006, the "B" Reactor Recirculation Pump tripped. An internal fault was the cause of both the recirculation pump motor and RFP motor failures. The "C" RFP motor was scheduled for replacement during the next refueling outage (1R22) in 2008.

Component Data.

Component: 'C' Reactor Feed Water Pump Motor
Cause: Internal ground fault
System: Feedwater
Component: Motor (P-2-2C)
Manufacturer: General Electric
Model number: 31E724